

130x109x34 mm., being both considerably flatter than the specimens described by Mr. Pilsbry.

All my specimens are distinctly narrowed in front, and in this particular the species differs essentially from *P. patriarcha*, which is very round in outline. I have a specimen of *patriarcha* exactly the same *width* as the two shells above mentioned, namely, 109 mm., but its *length* is only 119 mm. Our species is further distinguished by its sculpture from both *patriarcha* and *mexicana*—the ribs being narrower and much more numerous than in *patriarcha* and decidedly heavier than in *mexicana*. Every 5th or 6th rib in the adult shell seems to be more prominent.

Although my shells are not badly eroded there is but little color observable outside, except in spots where smaller limpets have had their stations. In such places the peculiar burnt red color so characteristic of *P. argenvillei* is seen, and the same color, with an occasional spot of black, edges the interior of the shell and in a paler and browner shade blotches the spatula, which in the young shells is sometimes entirely brown. It would seem that the color of the interior becomes lighter with age, as is the case in many other species.

The muscle scar is, as Mr. Pilsbry remarks, strongly marked and callous in the adult shell, but in the young, it is not at all noticeable. This is the case also with the 2 species with which *keradecensis* is compared.

On the whole this is the very finest of the many fine species of limpets that Mr. Pilsbry has made known to science during the last few years. It has no rival in size save *P. mexicana*, except it be the at present unrecognized *P. gigantea* of Lesson from the Society Islands, which may be found to be nearly allied or perhaps identical with the present shell.

NOTICES OF NEW JAPANESE MOLLUSKS, I.

BY H. A. PILSBRY.

The species described below were collected by Mr. Frederick Stearns of Detroit, Michigan, during his second visit to Japan, in 1892. They will be illustrated in his Catalogue of Japanese shells, now in preparation.

Sepia Hercules n. sp.

Shell having the general form of that of *S. esculenta* Hoyle but more convex ventrally; chitinous margin narrow; dorsal surface tuberculate-rugose as in *esculenta*, but more coarsely so, the posterior part having the tubercles very deeply separated, flat-topped, and leaning posteriorly; dorsal surface evenly rounded, with no trace of a median longitudinal rib. Ventral surface as in *esculenta*, but the striation is much closer although the shell is triple the size. Last loculus has an index of 22. Inner cone well developed, its limbs arising about one-third the length of the shell from the posterior end, gradually rising along the sides, posteriorly reflexed and appressed on the outer cone, leaving below a narrow small cavity. The anterior edge of the inner cone does not form a shelf across the posterior end of the outer cone as is the case in *esculenta*, and the cavity is much smaller, shallower and narrower than in a specimen of *esculenta* 155 mill. in length. Spine very stout, conical, its root excavated ventrally.

Length 425 mill.; greatest breadth 160 mill.; length of spine 19 mill.

This species is the giant of the genus, the shell being about $16\frac{7}{8}$ inches long. It is allied to *S. esculenta* Hoyle, but differs as above indicated. The dorsal slope does not descend abruptly to the spine as in that species. Of *S. esculenta* a good many specimens are before me collected by Mr. Stearns. They agree well with the "Challenger" specimens. The size of *esculenta* is moderately constant, those seen by Hoyle, Appellöf and myself being from 155 to 163 mill. long (about $6\frac{1}{4}$ inches). In color, *S. Hercules* is white in the middle, faint pink at the sides; whitish beneath.

A second specimen from the Loo Choo Is. exhibits the same characters throughout.

NOTES AND NEWS.

The Rev. Geo. W. Taylor reports the appearance of *Paludina Japonica* Mart. in the Chinese Market at Victoria, B. C. These Mollusks are accounted dainties by the Chinese and are retailed to them at 25 cents a pound. The occurrence of this species in the San Francisco markets was noted by Mr. W. M. Wood in the NAUTILUS, Vol. V, p. 114.